



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,310	12/12/2001	Thomas Schwengler	020366-080700US	8412
20350	7590	02/25/2005	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			PAYNE, DAVID C	
		ART UNIT		PAPER NUMBER
				2633

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/020,310	SCHWENGLER, THOMAS
	Examiner	Art Unit
	David C. Payne	2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 12 December 2001.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-23 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 12 December 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 6, 8-13, and 16-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsumori 6,509,989 B1 (Tsumori).

Re claims 1, 8, 16 and 20, Tsumori disclosed

A system for transmitting an optical signal to a plurality of receivers comprising: an optical transmitter for transmitting the optical signal, wherein the optical signal is allocated in a number of time slots corresponding to the plurality of receivers; a time-dividing device for time-dividing the optical signal received from the optical transmitter, wherein the optical signal is time-divided for a receiver by bending the signal with the time-dividing device at the time slot corresponding to the receiver so the receiver can receive the bent optical signal, wherein the bent optical signal includes information just for the receiver (see e.g., col./lines: 1/60-67, 2/65).

Re claims 2 and 21, Tsumori disclosed

an end device, wherein the bent optical signal is transmitted to the end device from the receiver. (see Figure 1).

Re claim 3, Tsumori disclosed wherein the optical transmitter comprises a laser (see 5 of Figure 1).

Re claims 6 and 9, Tsumori disclosed

A system for time-dividing an optical signal for a plurality of receivers an optical transmitter for transmitting the optical signal, wherein the optical signal is allocated in a number of time slots corresponding to the plurality of receivers; a catadioptric device for time-dividing the optical signal received from the optical transmitter, wherein the optical signal is time divided for a receiver by bending the signal at an angle with the catadioptric device at the time slot corresponding to the receiver so the receiver can receive the bent optical signal, wherein the bent optical signal includes information just for the receiver (see e.g., col./lines: 1/60-67, 2/65).

Re claims 10 and 17, Tsumori disclosed further comprising an end device, wherein the bent optical signal is transmitted to the end device from the receiver.

Re claims 11, 18, 22, Tsumori disclosed wherein the catadioptric device is a reflective device (3 of Figure 1).

Re claims 12, 19, 23, Tsumori disclosed wherein the catadioptric device is a refractive device (3 of Figure 1).

Re claim 13, Tsumori disclosed wherein the optical transmitter comprises a laser (see 5 of Figure 1).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 5, 7, 14, and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Tsumori 6,509,989 B1 (Tsumori) in view of Jorgensen et al. US 3,662,180 (Jorgensen).

Re claims 4, 5, 14 and 15 Tsumori does not disclose a microwave source. Jorgensen disclosed using either a microwave or radio frequency source in free space communication (see Jorgensen, col./lines: 2/30-75). It would have been obvious to one of ordinary skill in the art at the time of invention to use these sources in free space communication since they are widely practiced in the art as alternative modes of communicating energy.

Re claim 7, Tsumori does not disclose a rotating mirror. Jorgensen disclosed rotating drum with opaque (reflective) and transparent (refractive) attributes for directing signals. It would have been obvious to one of ordinary skill in the art at the time of invention to use a rotating drum to selectively reflect or refract transmission to receivers thereby modulating a signal.

***Conclusion***

Art Unit: 2633

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (571) 272-3024. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dcp

  
David C. Payne  
Patent Examiner  
AU 2633